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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,416	10/01/2003	Erik F. D. Todd	3772P028	8450

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EXAMINER
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LEUBECKER, JOHN P

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/677,416

Applicant(s)

TODD, ERIK F. D.

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 3,7-12,15,17,18,20-23,26,30,31 and 33-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,13,14,16,19,24,25,27-29 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Election/Restrictions***

1. Applicant's election with traverse of Species (1) ("camera") from the instrument species and Species (2) ("light emitting element") from the light source species, wherein Applicant elects sub-species (2) from the species utilizing a light emitting element, in the reply filed on October 3, 2005 is acknowledged. The traversal is on the ground(s) that all claims "read on" combinations of elements that conceivably and possibly materialize in the specification. This is not found persuasive because these alleged "combinations" are not specifically disclosed in the disclosure. The Examiner takes the position that the species distinguished between in the disclosure are distinct and independent and the claims, not including the generic ones, are clearly structurally directed to each of the species. It appears that Applicant has elected claims 2, 4-6, 13, 14, 16, 24, 25, 27, 29 and 32. It is noted that claims 19 and 28 would also be included. Therefore, claims elected for prosecution will be claims 1, 2, 4-6, 13, 14, 16, 19, 24, 25, 27-29 and 32.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Interpretation***

2. It is to be noted that the preamble and specifically the designation of the instrument as being a "hand-held endoscopic surgical instrument" has been given weight due to the reference back to the instrument in the body of the claim (e.g, circuitry to control a function of the instrument). This, and this only, avoids the application of references disclosing illuminated keypads on cell phones, remote controls, etc. as anticipation references on the claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-6, 13, 14, 16, 19, 24, 25, 27-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al. (U.S. Pat. 6,589,162) in view of Kaiwa et al. (U.S. Pat. 4,670,633) and further in view of McGowan et al. (U.S. Pat. 6,086,228).

Nakashima et al. disclose a hand-held endoscopic instrument (endoscope 20 and video camera 30, Fig.1) including a housing (not numbered but shown in Fig.1), circuitry (60,40,31, Fig.2) to control functions associated with the instrument, including a plurality of switch contacts (inherent by definition of the switch group 31), and a keypad mounted on the housing (Fig.1) and including a plurality of keys (31a-31f) operable by a user to actuate the plurality of switch contacts. Nakashima et al. thus fails to disclose a circuit board<sup>1</sup> to include the plurality of switch contacts and a light source to illuminate the keypad. Since one of ordinary skill in this art would readily recognize that operating rooms are typically dark environments which makes it difficult to see and use instruments during a procedure (McGowan et al., col.1, lines 22-30), there would be motivation to improve the visual acuity of instruments used in the

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<sup>1</sup> The Examiner takes the position that the practical size of the video camera (which contains the plurality of keys) and the level of technology in circuit design would almost inherently suggest that the switches of Nakashima were contemplated to be located on a common support or circuit board and not designed to be separate and independent structures all needing to be placed separately on the housing. However, Nakashima does not explicitly mention the circuit board. For completeness, it will be shown that placing the switch contacts of the keys on a circuit board is not an invention and has been contemplated in the prior art of record.

Art Unit: 3739

procedure, especially instruments with small switches to be depressed. Kaiwa et al. teaches that when a keypad is to be used in a dark place, it is desirable to locate a light source below the push buttons to enable the user to read the markings on the buttons (col.1, lines 26-30). Kaiwa et al. teaches in Figure 3 for example, a keypad including a plurality of translucent keys (12) operable to actuate a plurality of switch contacts (16) and light sources (LEDs 14), all located on a circuit board (24). The LEDs are mounted between the circuit board and keys. It would have been obvious to one of mere ordinary skill in the art to have provided an illumination means, and specifically LEDs, below the keys of Nakashima et al. to increase the visual acuity of such keys and therefore reduce erroneous key pressing in dark environments. Furthermore, if not inherent in the Nakashima et al. device, it would have been obvious to one of mere ordinary skill in the art to have provided the switch contacts of the keypad of Nakashima et al. on a circuit board, not only to provide a space efficient structure (e.g., by eliminating the need for separate supports and separate structures for connecting the switch contacts with the keys), but to provide the means for mounting the light sources (note 14 in Figure 3 of Kaiwa et al.) in close proximity to the keys to provide efficient illumination for such keys.

5. Claims 1, 2, 4-6, 13, 14, 16, 19, 24, 25, 27-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salvati et al. (U.S. Pat. 5,373,317) in view of Clercq et al. (US 2004/0268391) and further in view of Foote (U.S. Pat. 5,830,157).

As to claims 1 and 13, Salvati et al. disclose a hand-held endoscopic surgical instrument comprising circuitry to control a function of the instrument (inherent in video monitor 24 to provide the functions described in col.4, lines 31-41) and a keypad (control) including a plurality

Art Unit: 3739

of keys (28) to operate the circuitry. The instrument comprises a camera (col.4, lines 1-3).

Salvati et al. fails to disclose illuminated keys. The concept of illuminating keys to improve visual acuity is notoriously well known. Clercq et al. teaches that illuminated keys aid the user in correctly identifying and pressing the keys in, for instance, low light conditions ([0004]).

Since the reasonable person would recognize that use of the endoscope of Salvati et al. will typically be in low light conditions (e.g., the device of Salvati et al. is intended for inspection of inaccessible areas of a complex machine or device, such as the tubes of a boiler or the vanes of a gas turbine, which can be a dark environment, or used in a medical environment, e.g., operating room, for medical procedures, which as evidenced by Foote (“during surgery...the operating room is typically dark to better enable the surgeon to view the monitor”, col.2, lines 23-28) is typically a dark environment), it would be obvious to one of ordinary skill in the art provide illuminated keys to improve the visual acuity of such keys. As to claims 2, 4-6, 14, 16 and 19, one of ordinary skill, when reducing the above mentioned modification to practice would turn to the prior art to implement such modification. Clercq et al. teaches that illuminated buttons are “generally made of a semi-transparent or translucent material and require mechanical activation by the user (such as pressing on the button) to initiate the sending of commands from the remote control to an appliance. One or more light emitting device (LED) or electroluminescent (EL) units embedded in, or placed below or adjacent the button may be activated, either by control circuitry on the remote control (for instance when the remote control is moved or touched), or by electrical interconnection due to a button press” ([0005]). Also note Figure 4. Thus, it would have been obvious to use substantially translucent keys, a light source, separate from the keys and located beneath them, wherein the light source was an LED. As to claims 24, 25, 27-

29 and 32, Salvati et al., as modified above, discloses the device as claimed except for the specificity of a circuit board for mounting the switch contacts of associated with the keys (28). Clercq et al. teaches the placement of the switch contacts and LEDs on a circuit board (e.g., 402, Fig.4). It would have been obvious to one of ordinary skill in the art to have provided the switch contacts of the keys (28) on a circuit board since such would create a more space and cost efficient design and would be in accordance with modern technology.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Herbert (U.S. Pat. 4,293,764)—note illuminated switches for device used in operating room.

The following disclose relevant structures for illuminated buttons:

Thorton (U.S. Pat. 5,960,942)	Saito et al. (U.S. Pat. 6,595,653)
Kawaguchi et al. (U.S. Pat. 6,936,783)	Han (U.S. Pat. 6,956,561)
Mikula et al. (US 2003/0023179)	Dorundo et al. (US 2003/0128537)

The following disclose relevant structures for surgical instruments/camera devices with buttons:

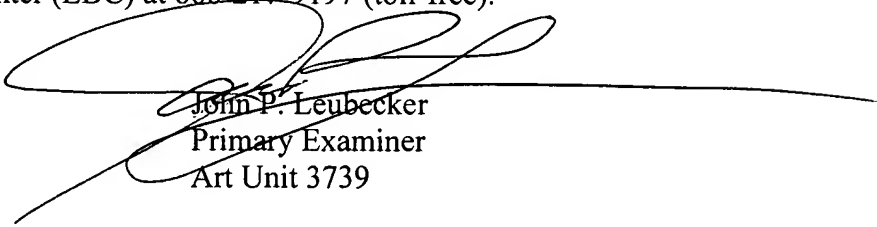
Onishi et al. (U.S. Pat. 6,612,981)	Black et al. (U.S. Pat. 6,869,397)
Ogawa (U.S. Pat. 6,945,931)	Yamaguchi (US 2002/0184122)

Art Unit: 3739

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P. Leubecker  
Primary Examiner  
Art Unit 3739

jpl